

**Patent claims**

1. Panel, in particular floor panel, having a support board (1) made of glued and compressed fiber material to which a termination layer (10) is applied in each case on a top side (15) and an underside (5), and the termination layer (10) of the top side (15) has a structured surface, characterized in that the density on the top side (15) of the support board (1) is lower than the density of the support board (1) on the underside (5).

2. Panel according to Claim 1, characterized in that the support board (1) has a density of less than 15 700 kg/m<sup>3</sup>.

3. Panel according to Claim 1 or 2, characterized in that the gluing factor of the support board (1) is greater than 10%.

20 4. Panel according to one of the preceding claims, characterized by UF resins or MUF resins as the means for gluing the fibers of the support board (1).

25 5. Panel according to one of the preceding claims, characterized by isocyanates as the means for gluing the woodbased materials of the support board (1).

30 6. Panel according to Claim 5, characterized by a gluing factor of less than 20% for isocyanates.

35 7. Panel according to one of the preceding claims, characterized by a mixture of isocyanates and UF or MUF resins as the means for gluing the woodbased materials of the support board (1).

8. Panel according to one of the preceding claims, characterized in that the support board (1) has a non-

uniform density distribution over the cross section from the top side (15) to the underside (5).

9. Panel according to Claim 8, characterized in that  
5 a density of 1000 kg/m<sup>3</sup> is present on the underside (5) of the support board (1), while a density of from 400 kg/m<sup>3</sup> to 600 kg/m<sup>3</sup> is present in the center of the support board (1).

10 10. Support board (1) according to one of the preceding claims.

11. Process for producing a panel, in particular floor panel, in the case of which a support board (1) is  
15 produced by the compression and heating of glued woodbased materials, and the support board (1) is provided with a structured surface on a top side (15), and a termination layer (10) is applied to the support board (1) provided with the stamped formation,  
20 characterized in that the density on the top side (15) of the support board (1) is set to be lower than the density of the support board (1) on the underside (5).

12. Process according to Claim 11, characterized in  
25 that the different densities are set by virtue of a cover layer of the top side (15) being ground off.

13. Process according to Claim 11, characterized in that the different densities are set by the single-sided application of heat-conducting media, in  
30 particular water, to the underside (5) prior to the woodbased material being heated.

14. Process according to one of Claims 11 to 13,  
35 characterized in that the structured surface is produced by a grinding-off and/or stamping operation.

15. Process for producing a support board (1) made of glued and compressed woodbased fiber material for a

panel, in particular floor panel, in the case of which the density on the top side (15) of the support board (1) is lower than the density of the support board (1) on the underside (5), and in the case of which the  
5 fiber material is compressed with the supply of pressure and heat, characterized in that the density on the top side (15) of the support board (1) is set to be lower than the density of the support board (1) on the underside (5) by the single-sided application of water  
10 to the underside (5) prior to the woodbased material being heated and compressed.

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